



## A large LAA- too big for closure? LAAC with the world's biggest percutaneous closure device

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### Case description:

A 77-year-old male patient with high stroke (CHA<sub>2</sub>DS<sub>2</sub>-Vasc Score 6) and bleeding (HASBLED Score 3) risk and a history of cerebral embolism on NOAC therapy was evaluated for LAA occlusion. TOE and CT imaging determined ostial diameters of 36x47 mm and 37x48mm, respectively. Because of non-eligibility for long-term oral anticoagulation and high risk for stroke, a custom-made Lambre<sup>®</sup> device (50x44mm) (Lifetech Scientific) was produced. The device was delivered by a 10 Fr commercial sheet (Lifetech Scientific) to the LAA and successfully implanted. The procedure and the handling of the device were unremarkable. Correct device position and complete sealing of the LAA was confirmed by angiography and TOE -Doppler as well as CT imaging. The Lambre<sup>®</sup> device was successfully and safely released. No further complications were detected. The 3-month follow-up determined the device well seated with complete sealing of the LAA and no device related thrombus was diagnosed by TOE and CT imaging.

### Discussion:

This case outlines the feasibility and safety of large LAA closure by custom designed devices, as commercially available LAAC devices only allow closure of the LAA ostium up to a diameter of 32 mm. Even these anatomical challenging morphologies can be closed safely with commercially available sheets. Custom designed percutaneous closure (max. device size 52x44mm) appears to be superior to other techniques such as double-device or minimally invasive surgical procedures to prevent an incomplete coverage of lobes, partial sealing of the LAA ostium or late leaks.